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International Specialists in the Environment

MEMORANDUM

ENFORCEMENT SENSITIVE

TO: Pete Culver, RPO

THRU: Philip Dula, FITOM

FROM: E & E/FIT

DATE: March 8, 1991

SUBJECT: Summary and Recommendations for the Douglas & Lomason Company site, Red Oak, Iowa.
TDD #F-07-9002-006 PAN #FIA0261RA
Site #T45 Project #001
RCRA Contact: Ken Herstowski
Superfund Contact: Pete Culver
FIT Project Leader: Sharon Martin

The Douglas & Lomason (D & L) Company manufactures seat frames and seat frame adjusters. The bulk of the plant operations consist of forming of the metal parts. The parts are finished by one of several techniques: painting with black paint, which contains a xylene, toluene, and mineral spirits mixture; plating with a zinc phosphate coating; or by depositing a latex solution on the metal using an autophoretic process. An on-site wastewater treatment (WWT) system treats wastewater from the zinc phosphator and autophoretic units. The WWT system also produces a filter press sludge which is a carbon and zinc sludge. The sludge is not E.P. Toxic. (Zinc plating utilizing hexavalent chromium once was used at this facility; in 1981, the resultant filter press sludge was tested and found to be E.P. Toxic. This process has been eliminated.) Wastewater discharge to the municipal sewer system is city permitted. The City of Red Oak maintains an NPDES permit for discharge of the municipal WWT system to the East Nishnabotna River. Other wastes produced include zinc phosphate sludge, pre-paint washer sludge, and painting wastes.

Several interim status storage areas require closure. The facility was granted interim status in 1980, but in 1985 the Iowa Department of Water, Air, and Waste Management (IDWAWM) unofficially withdrew D & L's interim status and waived closure. IDWAWM later explained to D & L the need for closure as per EPA regulations. Treatment, Storage, and Disposal Facility (TSDF) Interim Status was granted for two treatment tanks in the WWT system, and 500-gallons of container storage area. The location of the container storage was not noted in the Part A permit. D & L submitted an abbreviated closure plan in 1985; this plan addressed only two drum storage areas, Interim Storage Areas A and B. This closure plan was inadequate, and D & L has failed to revise the plan as required by the Iowa Department of Natural Resources (IDNR) and U.S.

Environmental Protection Agency (EPA). Two other drum storage areas were in use during interim status: Former Hazardous Waste Accumulation Area and Drum Storage Area #2. All of the container storage areas in use during interim status should be considered RCRA-regulated and should be closed during closure activities. All SWMUs and areas of concern are detailed in Table 1.

A mineral spirits product leak was discovered in 1987 during a RCRA inspection. The inspector also noted oily stained soil around the used oil storage tank. D & L removed seven drums of visibly contaminated soil from the area of the mineral spirits leak and replaced the four-year-old underground galvanized steel pipeline with PVC pipe. The used oil storage tank location was moved in 1990 to make way for construction of new loading docks. Its previous location is unknown; the area has been recently graveled.

The facility is located on soils that are assumed to be moderately slow to moderately permeable, and underlain by either glacial or alluvial deposits. The site is situated at the edge of the floodplain, approximately 2,500 feet west of the East Nishnabotna River. The nearest well is a residential well located approximately 4,000 feet upgradient of the site. No residential wells are known to exist downgradient of the site. Municipal wells occur at distances greater than 1.8 miles from the site; none are directly downgradient. The aquifers used in the area are alluvial, glacial, and the Cretaceous-age Dakota Sandstone. All are hydrologically connected.

Minor releases to the soil environment have occurred in the past (mineral spirits product and used oil). However, current operations have improved and it is believed that the potential for additional significant release to the environment from this site is very low. Other than closure of interim status and other RCRA-regulated storage areas, no further work appears warranted at this time. The potential for significant contamination at Interim Storage Area A appears to be minimal. At Interim Storage Area B, contamination should not be present because only well sealed drums in good condition are reported to have been stored there. Curbing should be added around current drum storage areas as a precautionary measure. A closure plan is in preparation for the Former Hazardous Waste Storage Area. Closure should also be considered for Drum Storage Area #2 which was in use to store listed wastes during the interim status period.

Attachment: Table 1: SWMUs/Areas of Concern

Table 1
SWMUs/Areas of Concern
Douglas & Lomason Company
Red Oak, Iowa
E & E/FIT; August 1990

Unit Name/Dates of Use	Waste Managed/Annual Amount	Photo #	Main Pathway(s) Potential for Release	Further Action Recommended
Wastewater Treatment Facilities (SWMU)*/1970s to present	Carbon/zinc filter press sludge ~33 tons	22-30	Nill/Nill	None **
Zinc Phosphator Tank 5-6-7 (SWMU)/ 1983 to present	Zinc phosphate sludge ~6 tons	14-17, 21	Nill/Nill	None **
Painting Operation Waste Production Areas (SWMU)/mid 1970s to present	D001 ~250 pounds; Dried paint waste ~10 tons; off-spec/ unuseable paints - amount varies	None	Air/High	Possible Air Monitoring
Pre-painting Washer System (SWMU)/ mid 1970s to present	Sludge ~3 tons	None	Nill/Nill	None **
Interim Drum Storage Area A (SWMU)/ 1984 to 1985	D001; F005 - none presently	38 (N/A)	Ground Water/Low	Closure Plan Sampling
Interim Drum Storage Area B (SWMU)/ 1984 to 1985	D001; F006 - none presently	33	Nill/Nill	None/Limited Closure Plan Sampling
Former Hazardous Waste Accumulation Area (SWMU)/ 1968(?) to 1984	F006 - none presently	13	Nill/Nill	Closure Plan Sampling
Drum Storage Area #1 (SWMU)/ mid 1989 to present	Carbon/zinc sludge ~33 tons; zinc phosphate sludge ~6 tons; washer sludge ~3 tons	31	Soil/Low	Add Curbing
Drum Storage Area #2 (SWMU)/ mid 1970s to present	Same as painting operations waste production area. Formerly also managed all dewatered sludges	39 (N/A)	Soil/Low	Closure Plan Sampling
Safety Kleen Parts Washers (2)/ 1978 to present	D001 ~1 ton	None	Nill/Nill	None **
Used Oil Storage Tank/ 1968(?) to present	Waste Oils ~ 1,200 gallons	34	Soil/Low	None **
Mineral Spirits Tank & Supply Line/ 1983 to present	N/A (product) Spill in 1987 appears small	5-37	Ground Water/Low	None **

* Discharge permitted under City permit with NPDES.
** Barring a catastrophic release or unforeseen event, no pathways appear significantly threatened by this feature.
N/A = not available.
Note: See Figure 2-3 for locations. The Part A permit listed only two (wastewater) treatment tanks and 500 gallons of container storage. The closure plan written to date covered only Interim Storage Areas A and B. However, two drum storage areas, Drum Storage Area 2 and the Former Hazardous Waste Accumulation Area, were in operation during interim status. Both should be considered RCRA-regulated.